

I claim:

1. A method of processing yarn, comprising the steps of:

(a) texturing a partially-oriented yarn to provide the yarn with a predetermined denier and elongation while imparting desired bulk and shrinkage characteristics and applying the textured yarn onto a dye package;

(b) placing the dye package with the textured yarn thereon in a dyeing vessel and dyeing the yarn with a combination of pressure, heat and chemicals to impart a desired color to the yarn;

(c) drying the dyed yarn;

(d) removing the dyed yarn from the dye package;

(e) applying a twist to the dyed yarn;

(f) taking up the twisted yarn onto an end use package; and

(g) setting the twist in the yarn.

2. A method of processing yarn according to claim 1, wherein the steps of removing the dyed yarn from the dye package, applying a twist to the dyed yarn, and taking up the twisted yarn onto an end use package are carried out in a single continuous process step.

3. A method of processing yarn according to claim 1 or 2, wherein the yarn is dried using heat.

4. A method of processing yarn according to claim 1 or 2, wherein the yarn is dried using moisture extraction.

5. A method of processing yarn according to claim 1 or 2, wherein the step of texturing the yarn comprises the step of false-twist texturing the yarn.

6. A method of processing yarn according to claim 1 or 2, wherein the step of twisting the yarn comprises the step of twisting the yarn on a 2-for-1 twister.

7. A method of processing yarn according to claim 6, wherein the twist applied to the yarn by the 2-for-1 twister is between 1 and 8 twists per inch.

8. A method of processing yarn according to claim 1, 2 or 7, wherein the end use package comprises a cone.

9. A method of processing yarn according to claim 8, wherein the processed yarn comprises sewing thread.

10. A method of processing yarn to produce a sewing thread, comprising the steps of:

(a) false-twist texturing a partially-oriented yarn to provide the yarn with a predetermined denier and elongation while imparting desired bulk and shrinkage characteristics suitable for sewing thread and applying the false-twisted yarn onto a dye package;

(b) placing the dye package with the false-twisted yarn thereon in a dyeing vessel and dyeing the yarn with a combination of pressure, heat and chemicals to impart a desired color to the yarn;

(c) drying the dyed yarn;

(d) removing the dyed yarn from the dye package;

(e) applying a sewing thread level of twist to the dyed yarn;

(f) taking up the twisted yarn onto an end use package; and

(g) setting the twist in the yarn.

11. A method of processing yarn according to claim 10, wherein the steps of removing the dyed yarn from the dye package, applying a twist to the dyed yarn, and taking up the twisted yarn onto an end use package are carried out in a single continuous process step.

12. A method of processing yarn according to claim 10 or 11, wherein the yarn is dried using heat.

13. A method of processing yarn according to claim 10 or 11, wherein the yarn is dried using moisture extraction.

14. A method of processing yarn according to claim 10 or 11, wherein the yarn is dried using a combination of both moisture extraction and heat.

15. A method of processing yarn according to claim 10 or 11, wherein the step of twisting the yarn comprises the step of twisting the yarn on a 2-for-1 twister.

16. A method of processing yarn according to claim 15, wherein the twist applied to the yarn by the 2-for-1 twister is between 1 and 8 twists per inch.

17. A method of processing yarn according to claim 10, 11 or 16, wherein the end use package comprises a cone.

18. A yarn processed according to the steps of claim 1, 2, 7 or 9.

19. A yarn processed according to the steps of claim 10, 11 or 16.